

J. Smith  
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Somewhere, USA, 01234

PATIENT: J. Smith  
DOB: 2/4/1962  
FILE #: 0123456  
PHYSICIAN: REFERRING  
EXAM: MRI SCAN OF THE RIGHT KNEE  
DATE: 08/07/2003

#### CLINICAL INDICATION

Joint line pain.

#### TECHNIQUE

Coronal T1-weighted images were performed, followed by coronal inversion recovery sequences. This was followed by sagittal T1 and fast spin-echo T2-weighted sequences and axial fast spin-echo T2-weighted sequences. In addition, sagittal 3D volume gradient-echo sequences were carried out.

#### FINDINGS

The medial meniscus demonstrates internal degenerative signal change within the posterior horn without a well-defined tear/defect. The lateral meniscus demonstrates linear internal degenerative signal change. There is an irregular cleavage tear involving the anterior horn and posterior horn extending peripherally into the body (image 626916 to 626920).

The anterior cruciate ligament fibers appear somewhat thin with surrounding myxoid degenerative change (image 626943). The posterior cruciate ligament fibers are intact. There is peripheral synovitis/bursitis surrounding the medial support structures. There is also diffuse peripheral synovitis surrounding the lateral support structures (image 627006 to 627012).

There is partial-thickness chondral loss/chondromalacia involving the medial joint compartment articular cartilage extending peripherally (image 627050 to 627055). There is joint space narrowing with faint peripheral subchondral edema and marginal spurring along the medial compartment (image 627007 to 627013). The lateral joint compartment articular cartilage demonstrates chondral loss/chondromalacia (image 627030 to 627035). This appears high-grade and full-thickness. There is joint space narrowing with subchondral marrow edema/stress-related change in the lateral femoral condyle and lateral tibial plateau and marginal osteophyte formation (image 627005 to 627010).

On the axial views, the patellofemoral joint is aligned. There is minimal surface irregularity along the medial patellar facet and central trochlear groove suggesting mild chondromalacia (image 626901 to 626907). A large volume joint effusion is evident.

There is patchy marrow signal change in the distal femur. This is identified within the distal femoral diaphysis (image 627011). This finding is nonspecific in a patient of this age.

#### IMPRESSION

1. INTERNAL DEGENERATIVE SIGNAL CHANGE WITHIN THE MEDIAL MENISCUS WITHOUT A WELL-DEFINED TEAR/DEFECT.
2. LATERAL MENISCAL TEAR.

3. TRICOMPARTMENTAL CHONDRAL LOSS/CHONDROMALACIA WITH DEGENERATIVE OSTEOARTHRITIC CHANGES. THE FINDINGS APPEAR MOST ADVANCED WITHIN THE LATERAL COMPARTMENT WHERE THERE IS SUBCHONDRAL MARROW EDEMA/STRESS-RELATED CHANGE IN THE LATERAL FEMORAL CONDYLE AND LATERAL TIBIAL PLATEAU. EVOLVING SECONDARY OSTEONECROSIS MAY BE CONTRIBUTING.
4. LARGE VOLUME JOINT EFFUSION/SYNOVITIS.
5. PATCHY MARROW SIGNAL CHANGE WITHIN THE DISTAL FEMUR. AS DESCRIBED, THIS IS IDENTIFIED WITHIN THE DISTAL FEMORAL DIAPHYSIS ON THE STIR SEQUENCE. THE FINDING IS NONSPECIFIC BUT MAY REPRESENT A DEGREE OF HEMATOPOIETIC MARROW/RECONVERSION. IF CLINICALLY INDICATED, A BONE SCAN CAN BE PERFORMED TO EVALUATE THE OSTEOLASTIC ACTIVITY IN THIS REGION AND IN THE REMAINDER OF THE AXIAL AND APPENDICULAR SKELETON IN A PATIENT OF THIS AGE.

THIS REPORT WAS ELECTRONICALLY SIGNED

**Cary J. Hoffman, MD**  
CJH/bc